

**Intra-operative radiotherapy with electrons (IOERT) and surgery in recurrence and primary tumors**V. Morillo Macías<sup>1</sup>, C. Ferrer Albiach<sup>1</sup>, A. Bouché Babiloni<sup>1</sup>, A. Santos Serra<sup>2</sup>, E. Boldó<sup>3</sup>, R. Lozoya<sup>3</sup>, R. García<sup>1</sup><sup>1</sup> Organismo Autónomo Local Hospital Provincial de Castellón, Oncología Radioterápica, Spain<sup>2</sup> Organismo Autónomo Local Hospital Provincial de Castellón, Radiofísica, Spain<sup>3</sup> Organismo Autónomo Local Hospital Provincial de Castellón, Cirugía Oncológica, Spain

**Introduction.** IOERT is a therapeutic variety of selective overimpression on tumoral volumes or area at relapse risk. That allows to protect the adjacent healthy tissues. AIMS Assessment of toxicity and survival of IOERT in exclusive treatment or overimpression of primary tumors and relapse.

**Materials and methods.** Retrospective study carried out between February 2008 and January 2013 in 67 patients who were administered IOERT as part of multidisciplinary treatment. 61.2% were women and 38.8% men. The median age was 65 years (range 31–91). The classification according to the localization was: 32.8% breast, 38.8% colon-rectal, limb 13.5%, gynaecological 3% and pancreas 4.5%. 56.7% were administered RIO as primary treatment, 7 as overimpression (9 Gy) and 13 as exclusive (21 Gy). 83.6% showed R0 after surgery. The most frequently applicator was 6 cm (34.4%) and the electron energy 4–15 MeV. The dose varies according to the intention (9–21 Gy) and the surgical margin. 25.4% were administered later external radiotherapy as adjuvant treatment (median 44 Gy).

**Result.** With a follow up of 60 month, the current overall survival is 77.6%. The disease free survival (DFS) and metastasis (DFM) is 80.6% and 85.1% respectively. The current local control is 91% with a trend towards significance between primary and relapse ( $p=0.074$ ). Of the patients with relapse after treatment, 60% received chemotherapy with progression criteria in 60%. Five of those patients (50%) died due to surgical complications. The maximum acute toxicity was GIII: dermatitis 1.5%, genitourinary 4.5% and moderate limitation in mobility was 3%. Two patients presented neuropathic pain GIII with improvement one month after treatment end. No later complications have been assessed because of the short monitoring period.

**Conclusions.** The use of IOERT, either as a relapse or primary treatment provides an increase in the local control. It minimizes the duration and toxicity of treatment.

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**Outcomes of multidisciplinary approaches for adjuvant radio-chemotherapy in resectable locally advanced gastric cancer**

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**Objectives.** To analyze the results in terms of local recurrence, disease free survival (DFS), cancer specific survival (CSS) and toxicity of patients (pts) with resectable locally advanced gastric cancer treated with adjuvant radio-chemotherapy (RT-QT) in our center.

**Materials and methods.** Retrospective cohort study of 116 pts with resectable locally advanced gastric cancer treated with adjuvant RT-QT in our department from April 2002 until June 2012. Median age 62.33 years old (25–84). 64.7% were men. The antrum and distal stomach (54.3%) were the most frequent localization. Median KPS score was 100% (70–100%). Subtotal gastrectomy was the most frequent surgical procedure (59.3%) and 88.7% were R0. A lymph node dissection including more than 12 lymph nodes was performed in 42.2% pts. 54.3% pts had a histological intestinal subtype of adenocarcinoma. Pathological stage: Ib: 15.5%; II: 18.1%; III: 55.1%; IVa: 9.5%. Fluoropirimidines in monotherapy was the chemotherapy used most frequently. All patients were treated with 3D conformal radiotherapy with a median dose of 45 Gy (range 12.6–54)/1.8 Gy using photons of 18 MV. The median interval between surgery and radiotherapy was 95 days (40–223).

**Results.** Median follow-up: 36.5 months (6–126). 56% pts died, 12 for reasons unrelated to gastric cancer and 17.2% due to local recurrence. CSS and DFS at 3 and 5 years were 55.9% and 47.8%, and 50.6% and 43.6% respectively. In the univariate analysis the stage, localization, lymph node involvement and type of resection had a significant impact in CSS and DFS. Nausea and vomiting (30%) were the most common acute effects followed by weight loss during treatment (35%) and enteritis and stenosis (11.2%) the most common late effects.

**Conclusion.** In our experience, the results in terms of survival and toxicity in pts with resectable locally advanced gastric cancer treated with adjuvant radio-chemotherapy are similar to those published so far in the literature.

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**Patterns of failure in pancreatic cancer: Results review**

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**Introduction and purpose.** Pancreatic cancer is one of the malignant diseases which shows a higher failure rate with a 5 year overall survival under 5%. The aim of this review is to analyze the patterns of relapse of patients diagnosed of pancreatic cancer and treated with combined radiochemotherapy in our institution.

**Methods.** During 2011 and 2012 a total of 17 patients with pancreatic cancer have been treated with chemoradiotherapy in our institution, (10 male, 7 female). Location of the primary tumour was pancreatic head in 13 of them and body or tail in 4. Nine